

## RISK RATIO CALCULATION For a Particular Disability Category Example

### Question

What is a specific racial/ethnic group's risk of receiving special education and related services for a particular disability as compared to the risk for all other students?

### Equation

$$\text{Risk Ratio} = \frac{\text{Risk for racial ethnic group for disability category}}{\text{Risk for comparison group (all other students) for disability category}}$$

### Example

In a North Carolina local education agency (LEA), what is the risk for African American students receiving special education as Intellectually Disabled (ID)-mild as compared to the risk for all other students?

1. Calculate the numerator – risk for African American students to be identified as ID-mild

$$\begin{aligned}\text{Risk} &= \frac{\text{African American Students ID-mild category}}{\text{All African American students enrolled in the LEA}} 100 \\ &= \frac{32 \text{ African American ID-mild students}}{751 \text{ African American students}} 100 \\ &= 4.26\end{aligned}$$

2. Calculate the denominator – risk for all other students to be identified as ID-mild

$$\begin{aligned}\text{Risk} &= \frac{\text{All other students in ID-mild category}}{\text{All other students enrolled in the LEA}} 100 \\ &= \frac{104 \text{ all other students ID-mild}}{11060 \text{ all other students enrolled in LEA}} 100 \\ &= 0.94\end{aligned}$$

3. Calculate the risk ratio for ID-mild African American students :

$$\begin{aligned}&= \frac{4.26}{0.94} \\ &= 4.53\end{aligned}$$

**Answer:** In the North Carolina LEA example, African American students are **4.53** times more likely to be identified to receive special education as ID-mild than all other students.